

Attorney Docket: 225/49093
PATENT

compounds produced from fibers of different qualities and/or in different proportions, and (C) a binder into a press mold and then pressing the same to form a green body, wherein the press mold is filled with the pressing compounds in a plurality of successive steps and differently coated fibers are used for the various pressing compounds.

REMARKS

Favorable consideration and allowance are respectfully requested for claims 1, 2, 4, 6-15, and 25 in view of the foregoing amendments and the following remarks.

In the Office Action dated December 24, 2002, claims 1-15 and 25 were rejected under 35 U.S.C. § 112, first paragraph, as not providing sufficient enablement; claims 1, 2, 14, and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,741,457 ("Iida") in view of U.S. Patent No. 6,086,814 ("Krenkel") or "the prior art discussed at pages 2-3 of the specification"; and claims 3-13 and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Iida and Krenkel in view of U.S. Patent No. 4, 837,230 ("Chen") and/or "Derwent Acc No. 1989-012429." These rejections are respectfully traversed.

Claim 1 has been amended to recite "by infiltrating molten liquid silicon into a shaped porous body," and now includes the subject matter of claims 3 and 5; claims 3 and 5 have been cancelled by this amendment; claims 16, 17, and 21 have

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been withdrawn from consideration; claims 18-20, and 22-24 have been previously cancelled; therefore, claims 1, 2, 4, 6-15, and 25 remain pending in this application.

Rejection under 35 U.S.C. § 112, first paragraph

Claims 1-15 and 25 were rejected under 35 U.S.C. § 112, ¶ 1, because the specification allegedly "does not reasonably provide enablement for production of a reaction bonded silicon matrix by other methods." Office Action at 2. In order to advance the prosecution of this application, claim 1 has been amended to recite "by infiltrating molten liquid silicon into a shaped porous body" to comply with the Examiner's suggestion. The suggested language "containing carbon" was not inserted because the claim is not limited to carbon as it recites "one of carbon, silicon, boron and nitrogen." Accordingly, it is requested that the rejection under 35 U.S.C. § 112, ¶ 1, be withdrawn.

Rejections under 35 U.S.C. § 103(a)

Claims 1, 2, 14, and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Iida in view of Krenkel or the prior art discussed at pages 2-3 of instant specification, and claims 3-13 and 25 were rejected under 35 U.S.C. § 103(a) further in view of Chen and/or "Derwent Acc No. 1989-012429." Claim 1 has been amended to include recitations from claim 3, "said fibers being coated with a layer of a pyrolyzable binder" and from claim 5, "differently coated fibers are used for the various pressing compounds." The coating of the fibers with a layer of a pyrolyzable

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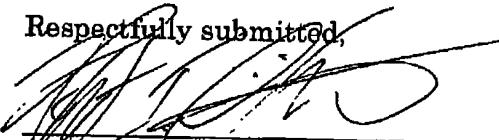
binder is not disclosed in Iida or Krenkel. The claimed pyrolyzable binder coating has the effect that, during the reaction with the molten liquid silicon, the coated fibers are not converted to SiC. Additionally, claim 1 requires that differently coated fibers be used for the various pressing compounds. Moreover, it is maintained that Iida and Krenkel are not properly combinable. Accordingly, withdrawal of the rejection of claims 1, 2, 4, 6-15, and 25 is respectfully requested.

In view of the foregoing, the application is respectfully submitted to be in condition for allowance, and prompt favorable action thereon is earnestly solicited.

If there are any questions regarding this response or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response; please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #225/49093).

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Respectfully submitted,


Herbert I. Cantor
Registration No. 24,392
W. Jackson Matney, Jr.
Registration No. 39,292

CROWELL & MORING, LLP
P.O. Box 14300
Washington, DC 20044-4300
Telephone No.: (202) 624-2500
Facsimile No.: (202) 628-8844

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MARKED-UP VERSION TO SHOW CHANGES

IN THE CLAIMS

1. (Amended twice) A process for producing a fiber composite material comprising filling (A) fibers with a high hot strength, based on at least one of carbon, silicon, boron and nitrogen, said fibers being coated with a layer of a pyrolyzable binder [which are] and reaction-bonded to a silicon-based matrix by infiltrating molten liquid silicon into a shaped porous body, (B) a plurality of pressing compounds produced from fibers of different qualities and/or in different proportions, and (C) a binder into a press mold and then pressing the same to form a green body, wherein the press mold is filled with the pressing compounds in a plurality of successive steps and differently coated fibers are used for the various pressing compounds.